**Response of the Project Participants to the request for review for: "Central Izalco Cogeneration Project" (1033)**

**Questions 1, 2 and 3 are common to all requests for review. Therefore, the comments of the project participants to these questions are valid to all requests. There is also an additional question from request 2. In the following text, the reasons for request are *italicized*.**

**Requests 1, 2 and 3**

*Minor issues*: The barrier analysis has demonstrated additionality, but the following needs clarification:

1. *Page A-26 of the validation report states that there is no evidence of a power purchase agreement.*

*The DOE has closed the issue because the project participant has responded that this kind of contract does not exist in El Salvador and that electricity is sold on the spot market. However page 6 of the validation report states, "The project developer has already secured a power purchase agreement for delivering the electricity to the El Salvador grid."*

Page 6 of the validation report must be corrected as follows:

"The project developer has already secured a **contract in the spot market** for delivering the electricity to the El Salvador grid."

2. *Page 8 of the validation report states that the benchmark analysis uses a spot market electricity tariff. As a spot market electricity tariff fluctuates over time, the PDD should include what assumptions have been made in using a fixed electricity tariff for the IRR calculations (e.g. is this an average price or from a bilateral contract?).*

The electricity tariff used for the IRR calculation was based on an average price, taken from the "Study of the Electricity Markets of Guatemala and El Salvador", carried out in 2000 by the independent consultant Fernando E. Montoya for Conexión Energética Centroamericana S.A. (copy under request).

A contract is signed between CASSA - Compañía Azucarera Salvadoreña, S.A. de C.V, developer of the Izalco Project, and the distribution company. There are no predefined price ranges. A summary of the calculation is shown below:

| | |
|---|---|
| Average energy price of the MRS (*Mercado Regulador del Sistema* – System Regulator Market) ($/ KWh) | 0.064 |
| Cost of CUST (*Cargo por el Uso del Sistema de Transmisión* - Charge for the Use of the Transmission System) and Auxiliary Services ($/KWh) | - 0.0069 |
| Commercialization Cost ($/KWh) | -0.00507 |
| Incentive for Commercialization ($/KWh) | + 0.0017 |
| Net price of electrical energy ($/KWh) | 0.05373 |

3. *Section B.6.1 of the PDD should clearly state whether the build margin has been calculated using the five power plants that have been built most recently, or the power plant capacity additions in the electricity system that comprise 20% of the system generation and that have been built most recently.*

The build margin was calculated using the generation of the 5 most recent units, which is greater than the power plant capacity additions in the electricity system that comprise 20% of the system generation, as shown in the Table below, provided The Ministry of Environment and Natural Resources (*Ministerio de Medio Ambiente y Recursos Naturales*) of El Salvador

**C. Build Margin Value Calculation**

| Total Cerrón Grande capacity installed | | | 173 | | % increment respect total | | 0.109375 | |
|---|---|---|---|---|---|---|---|---|
| Owner | Unit | Technology | Starting Year | Installed capacity (MW) | Type of Fuel | 2005 net generation (MWh) | 2005 CO2 emissions (tCO2) | 2005 average emission rate (tCO2/MWh) |
| CEL | Cerrón Grande unit 2 | Hydro | 2005 | 18.9 | Fuel oil No. 6 | 63,252 | 0 | - |
| CESSA | CESSA ICE 1 & 2 | Internal combustion | 2001 | | Fuel oil No. 6 | 179,292 | 130,031 | 0.725 |
| CESSA | CESSA ICE 2 | Internal combustion | 2001 | | Fuel oil No. 6 | | | |
| DUKE | Acajutla ICE 2 | Internal combustion | 2001 | | Fuel oil No. 6 | 782,491 | 538,559 | 0.688 |
| DUKE | Acajutla ICE 1 | Internal combustion | 2000 | | Fuel oil No. 6 | | | |
| | | | | | | 1,025,034 | 668,590 | **0.652** |

| | | | | |
|---|---|---|---|---|
| Generation of most recent 5 units | **1,025,034** | MWh | | |
| 20% Wholesale market generation (UT) | **896,140** | MWh | **968,625** | 20% gross generation |

Weighted average of **most recent 5 units** **0.652** tCO2/MWh



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*-The majority of the PDD uses version 3.1 while the annexes use version 2.*

The correct version is 3.1 for the whole PDD.

*- On pages 26 and 27 of the PDD there are missing references, i.e. "Error! Reference source not found".*

The missing references relate to "Equation 5", in page 26, and "Figures", in page 28.

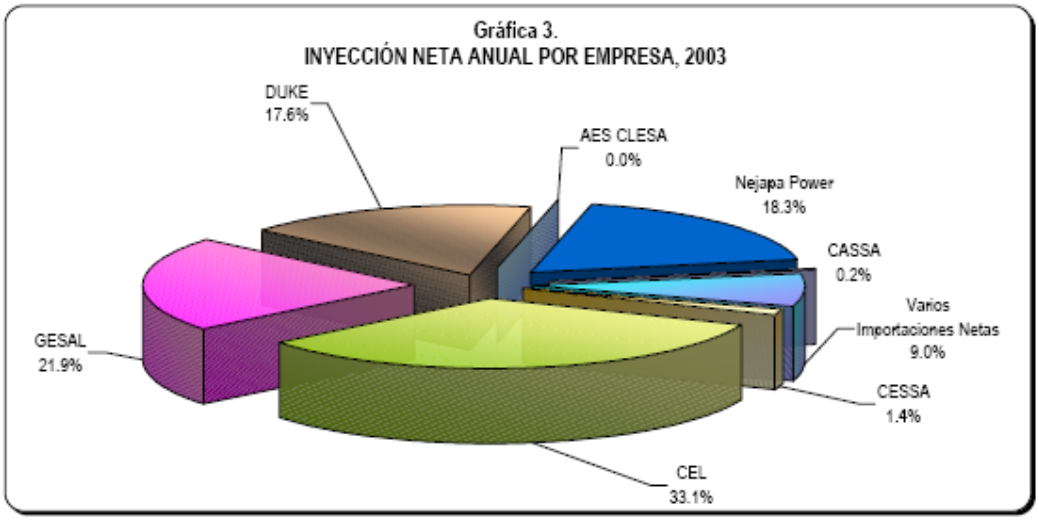
*- The PDD refers to an annex 'El Salvador interest rates' which has not been included in the submission.*

Please find annexed the file "El Salvador interest rates", a letter from *Banco Agricola*, stating, in a free translation: "We confirm that active interest rates in 2001 were up to 18%, for production credits, and up to 20%, for consumer credits."

**Additional question from Request 2**

1. *The Project proponent and the DOE should clearly demonstrate the additionality of the Project. The only evidence provided that Compañía Azucarera Salvadoreña, S.A. de C.V seriously considered the CDM in the decision to proceed with the project, being a prompt start project, was verified on the online newspaper "Hablemos-El Salvador" website (See page 11 of 52 of the Validation report). Unfortunately that electronic publication (January 20th, 2002) also states that "The Izalco Power Station, the largest sugar cane processor in the country, has been producing electricity from burning bagasse for many decades" This is, on the contrary, evidence that this project might be business as usual.*

The Project Activity is an energy efficiency project. Izalco has produced electricity with low efficiency before the project, exporting the energy surplus, in small amounts, when available. In the baseline, Izalco exported approx. 3,000 MWH yearly; after the Project, approx. 90,000 MWh yearly, 30 times more than in the baseline. The production of electricity from burning bagasse with high efficiency in El Salvador began only after Izalco Project (developed by CASSA - Compañía Azucarera Salvadoreña, S.A. de C.V.) started to operate, in 2003 (see figure below). Therefore, it can not be considered as business as usual.




**Net energy supply per company, 2003 (source: http://www.siget.gob.sv SIGET – *Superintendencia General de Electricidad y Telecomunicaciones* – General Management of Electricity and Telecommunications)**

After the Project, CASSA entered the list of energy suppliers in El Salvador. See below a list of energy suppliers in 2002 and 2003, showing that CASSA was absent in 2002, and was included in 2003, another evidence that the Project Activity is not business as usual.

**Energy supply per operator (2002).**

Year: **2002**

| Month | d01 | d02 | d03 | g01 | g02 | g03 | g05 | g06 |
|---|---|---|---|---|---|---|---|---|
| January | - | - | 0.1 | 86.6 | 70.5 | 72 | 78.1 | 8.6 |
| February | - | - | - | 80.1 | 67.8 | 66.2 | 70.6 | 6 |
| March | - | - | 0.1 | 88.5 | 75 | 67.8 | 69.2 | 6.9 |
| April | - | - | 1.7 | 92.5 | 76.5 | 75.4 | 66.7 | 7.6 |
| May | - | - | - | 74 | 91.6 | 94.5 | 76.8 | 8.9 |
| June | - | - | - | 110.8 | 77.8 | 46.4 | 77.3 | 9 |
| July | - | 0.1 | 0.1 | 113.2 | 46.3 | 95.2 | 80.1 | 6 |
| August | - | - | - | 88.7 | 65 | 92.1 | 80.1 | 5.1 |
| September | - | - | - | 98.3 | 63.4 | 78.9 | 70 | 6.3 |
| October | - | - | - | 124.9 | 47.2 | 76.4 | 77.8 | 7 |
| November | - | - | 0.1 | 90.5 | 53.8 | 73.2 | 82 | 6.7 |
| December | - | - | 0.1 | 85.1 | 59.3 | 77.6 | 83.3 | 7.1 |

Source: Transactions Unit (*Unidad de Transacciones, S.A*)

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**Source: http://216.184.107.60/utweb/estadisticas.htm**

**Energy supply per operator (2003).**

Year: **2003**

| Month | d03 | g01 | g02 | g03 | g05 | g06 | g07 |
|---|---|---|---|---|---|---|---|
| January | 0.2 | 117.8 | 60.5 | 57.2 | 84.1 | 5.8 | - |
| February | 0.1 | 103.8 | 60.3 | 65.2 | 75.1 | 5.1 | - |
| March | 0.1 | 111.4 | 72.8 | 89.7 | 82.8 | 7.6 | 0.6 |
| April | - | 96.7 | 67.7 | 93.9 | 79.8 | 6.5 | 3.5 |
| May | - | 95.4 | 82.4 | 120.2 | 82.1 | 6.1 | - |
| June | - | 131.7 | 66.1 | 63.4 | 80.5 | 1.7 | - |
| July | - | 130.6 | 62.3 | 48 | 83.9 | 7 | - |
| August | - | 120.9 | 60 | 56.4 | 82.6 | 4.7 | - |
| September | - | 163.2 | 57.5 | 31.1 | 68.8 | 3.3 | - |
| October | - | 179.5 | 58 | 23.5 | 83.9 | 6.7 | - |
| November | - | 116.7 | 76.1 | 58.9 | 79.9 | 3.7 | 0.8 |
| December | - | 91.3 | 80.9 | 66.2 | 82.6 | 4.9 | 5.3 |

Source: Transactions Unit (*Unidad de Transacciones, S.A*)

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**Source: http://216.184.107.60/utweb/estadisticas.htm**